

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**DAM, MULTIPLE-PURPOSE, (NUMBER AND ACRE FEET)**

**Code 349**

**DEFINITION**

A dam constructed across a stream or a natural watercourse that has a designed reservoir storage capacity for two or more purposes, such as floodwater retardation and irrigation water supply, municipal water supply, and recreation.

**PURPOSE**

A multiple-purpose dam must provide distinct and specific storage allocations for two or more of the following purposes: (1) floodwater retardation, (2) irrigation, (3) fishing, hunting, boating, swimming, or other recreational uses, (4) improve environment or habitat for fish or wildlife, (5) municipal, (6) industrial, and (7) other uses. (A reservoir for which multiple use is made of the same storage allocation is not a multiple-purpose dam; however, a dam designed for joint-use storage is a multiple-purpose dam.)

**CONDITION WHERE PRACTICE APPLIES**

This practice applies only to sites meeting all the following criteria:

1. Topographic, geologic, hydrologic, and soil conditions at the proposed site are satisfactory for constructing a feasible dam and reservoir.
2. The watershed is protected from erosion to the extent that the sediment yield will not shorten the planned effective life of the reservoir.
3. Water is available from a single or combined source of subsurface runoff base flow or from subsurface storage in

sufficient quantity and adequate quality to satisfy the intended purposes .

4. The construction and operation of the dam is permitted by state laws and regulations.

**CRITERIA**

**Foundation, Embankment, and Spillway.**

All dams designed under this standard shall meet or exceed the foundation, embankment, and spillway criteria called for in Pond (378) or in TR-60, as appropriate.

**Floodwater Retarding Pool and Spillway.**

Dams having a floodwater retarding purpose shall meet or exceed the requirements of Floodwater Retarding Dam (402).

**Outlet Works.** Outlet works discharging releases for several purposes shall have adequate capacity to carry the peak flow resulting from the combined demands at any time. Outlet conduits and appurtenances shall be designed according to criteria that are equal to or better than that called for in Pond (378) or in TR-60, as appropriate.

**Storage.** The usable storage capacity shall be adequate for all purposes. Seasonal variations in demand and the expected losses from seepage and evaporation must be considered.

**Sediment Storage.** The capacity, in addition to that required for all other purposes, must offset depletion by sediment accumulation for a period equal to the design life.

**Type of Structures.** All dams and appurtenances shall be designed to meet applicable NRCS standards for the specific type and class of structure.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

**NRCS, IA  
March 1983**

**Reviewed January 2002**

**PLANS AND SPECIFICATIONS**

Plans and specifications for installing multiple-purpose dams shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.